



Agenda
NASA Sounder Science Team Meeting
Nov. 13 - 16, 2012
MARRIOTT GREENBELT

Tuesday, Nov. 13, 2012

Session 1: Introduction, Project Status (Chair: Pagano)

Tom Pagano	NASA JPL	AIRS Project Status	8:00 AM
Joao Teixeira	NASA JPL	AIRS Science	8:20 AM
Eric Fetzer	NASA JPL	AIRS Version 6 Validation, Science Results and ATBD	8:40 AM
Mitch Goldberg	NOAA	Overview of NPP, CrIS, ATMS and VIIRS Sensor Data Records Performance	9:00 AM
Jack Kaye	NASA HQ	NASA Headquarters Perspective	9:20 AM
Thomas August	EUMETSAT	Current status of the operational IASI L2 at EUMETSAT and on the current development activities	9:40 AM

BREAK

10:00 AM

Session 2: Climate Processes and Model Validation (Chair: Aumann)

Norman Loeb	NASA LRC	Advances in Understanding Top-of-Atmosphere Radiation Variability from Satellite Observations	10:20 AM
George Aumann	NASA JPL	Ten Years of Trends in OLR, RSW and NET Radiation	10:50 AM
Larrabee Strow	UMBC	AIRS+Radiance PDFs for Climate Trending	11:10 AM
Sun Wong	NASA JPL	Scaling of Extreme AIRS Brightness Temperature with Tropical Ocean Surface Temperature	11:30 AM

LUNCH

12:00 - 1:30

Xianglei Huang	University of Michigan	An Update on the spectral flux and cloud radiative effect studies using the AIRS data	1:30 PM
Stephen Eckerman	NRL	Deep Stratospheric Gravity-Wave Activity Derived from 9 Years of AIRS Radiances	1:50 PM
Gerald Potter	NASA GSFC	Providing observations and analysis for the Earth System Grid Federation: an update and plans	2:10 PM
Alexander Ruzmaikin	NASA JPL	Relative Humidity Extremes	2:30 PM
David Chapman	UMBC	Nearest Neighbor Estimate of the AIRS Clear Sky Moisture Bias	2:50 PM

BREAK

3:10 PM

William Irion	NASA JPL	Comparison of AIRS V5 and V6 temperature profiles against operational radiosondes	3:30 PM
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Session 3: Data Services (Chair: Friedman)

Steve Friedman	NASA JPL	AIRS Version 6 Update	3:50 PM
Thomas Hearty	NASA GSFC	AIRS Data Services and Distribution Metrics from the GES-DISC	4:10 PM
Gene Major	NASA GSFC	Title: Impact of NASA EOS instrument data on the scientific literature: 10 years of published research results from Terra, Aqua, and Aura	4:30 PM
Eric Fetzer	NASA JPL	A Multi-Sensor Water Vapor, Temperature and Cloud Climate Data Record	4:50 PM

ADJOURN

5:10 PM



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Wednesday, Nov. 14, 2012

Session 4: Clouds and Aerosols (Chair: Kahn)

Brian Kahn	NASA JPL	AIRS Version 6 cloud thermodynamic phase and ice cloud properties: Initial results, applications, and comparisons to MODIS	8:00 AM
Mark Zelinka	LLNL	The observed sensitivity of high clouds to mean surface temperature anomalies in the tropics.	8:20 AM
Dan Lubin	Scripps Institute	AIRS Retrieval of Cloud Radiative Properties over Antarctica	8:40 AM
Nicholas Nalli	NOAA	Angular Effect of Residual Clouds and Aerosols in Clear-Sky IR	9:00 AM
Eric Maddy	NOAA/NESDIS/STAR	Dust and Volcanic Ash Retrievals using AIRS Data	9:20 AM
Lazaros Oreopoulos	NASA GSFC	Cloud regimes from joint histograms of passive retrievals and their potential applications	9:40 AM

BREAK

10:00 AM

Session 5: Atmospheric Composition (Chair: Olsen)

Edward Olsen	NASA JPL	V6 CO2 Retrieval Development	10:20 AM
Tom Pagano	NASA JPL	Temporal and Spatial Variability in the AIRS Version 5 Mid Tropospheric Carbon Dioxide:	10:40 AM
Junjie Liu	NASA JPL	Evaluating the impact of AIRS mid-troposphere CO2 on surface CO2 flux estimation over the tropics	11:00 AM
Xun Jiang	University of Houston	Investigation of CO2 Variations from Multiple Satellite CO2 Retrievals and Model Simulations	11:20 AM
Paul Dimotakis	NASA JPL	Progress in estimation methodology of atmospheric CO2 concentration vertical profiles using AIRS Data	11:40 AM

LUNCH

12:00 - 1:30

Meiyun Lin	Princeton University/NOAA GFDL	Using AIRS observations to forecast Asian pollution and stratospheric intrusion events at Western U.S. surface sites in spring	1:30 PM
Can Li	NASA GSFC	Rapid transpacific transport in autumn observed by the A-train Satellites	1:50 PM
Juying Warner	UMCP/AOSC	Global Daily Ammonia Measurements from AIRS	2:10 PM
Xiaozhen Xiong	NOAA	Update of CH4 retrieval from AIRS, IASI and CrIS	2:30 PM
Leonid Yurgonov	JCET/UMBC	Methane emission from the Arctic shelf? AIRS and IASI data	2:50 PM
William Irion	NASA JPL	Validation of V6 AIRS ozone profiles against ozonesondes	3:10 PM

BREAK

3:30 PM

Session 6: Product Applications and Validation (Chair: Fetzer)

Xavier Calbet	EUMETSAT	Sondes meet hyperspectral: why current sonde technology can become a reference measurement for hyperspectral retrievals.	3:50 PM
Robert Knuteson	University of Wisconsin	Validation of Sounder UTLS temperature using GPS RO: Experience with AIRS and COSMIC	4:10 PM
Mingui Diao	Princeton University	Water vapor and temperature comparisons between AIRS/AMSU-A and in situ aircraft observations from 87°N to 67°S and sensitivities to spatial and temporal differences	4:30 PM
Bill Smith	Hampton University/ University of Wisconsin	Comparison of AIRS and CrIS Retrievals	4:50 PM
Dimitar Ouzounov	GSFC/SSAI & Chapman University	Application of Aqua/AIRS OLR data for disaster risk mitigation	5:10 PM

ADJOURN

5:30 PM



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Thurs. Nov. 15, 2012

Session 7: Weather Forecast Improvement, Data Assimilation (Chair: Lambrigtsen)

Will McCarty	NASA GSFC	Handling Cloud-Affected Infrared Radiances in the GEOS-5 System	8:00 AM
Peter Norris	NASA GSFC	Bayesian constraint of a gridcolumn statistical model of total water content with high-resolution satellite cloud observations	8:20 AM
Kristen Brown	North Carolina State University	Assimilating Irregularly Spaced Sparsely Observed Turbulent Signals with Hierarchical Bayesian Reduced Stochastic Filters	8:40 AM
Zhiqian Liu	NCAR	Assimilation of hyperspectral infrared radiances using Principal Component-based radiative transfer model	9:00 AM
Oreste Reale	NASA GSFC	AIRS impact on tropical cyclone forecasting in the GEOS-5	9:20 AM
Ding Feng	NASA GES-DISC/ADNET Systems, Inc.	Assessing the Potential of the AIRS Retrieved Surface Temperature for 6-Hour Average Temperature Forecast in River Forecast Centers	9:40 AM

BREAK **10:00 AM**

Oreste Reale	NASA GSFC	AIRS Impact on Analysis and Forecast of an Extreme Rainfall event (Indus River Valley, Pakistan, 2010) with a global data assimilation and forecast system	10:20 AM
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Session 8: NPP Suomi Instruments, Algorithms and Data Products (Chair: Strow)

Larabee Strow	UMBC	CrIS Calibration/Validation Status	10:40 AM
Anthony Reale	NOAA	Preliminary validation of SUOMI-NPP sounding products using the NOAA Product Validation System (NPROVS)	11:00 AM
Murty Divakarla	NASA GSFC	Provisional Maturity Assessment of CrIMSS EDRs - Preliminary Results and Future Validations	11:20 AM
Nicholas Nalli	NOAA	Suomi NPP CrIMSS EDR Intensive Cal/Val Dedicated RAOB Campaign Overview	11:40 AM

LUNCH **12:00 - 1:30**

Xu Liu	NASA LRC	Suomi NPP CrIMSS EDR performance tuning	1:30 PM
Antonia Gambacorta	NOAA/NESDIS/STAR	The NOAA Unique CrIS/ATMS Processing System (NUCAPS): Results after one year in orbit	1:50 PM
Joel Susskind	NASA GSFC	Preliminary assessment of the accuracy of CrIS/ATMS retrievals generated at SRT using an AIRS" Version-6 -like" retrieval algorithm	2:10 PM
Steve Friedman	NASA JPL	Sounder PEATE Status	2:30 PM
Sung Yung Lee	NASA JPL	NPP Data and Software Evaluation at Sounder PEATE	2:50 PM

BREAK **3:10 PM**

Bjorn Lambrigtsen	NASA JPL	Preliminary ATMS Assessment	3:30 PM
Chris Barnett	NOAA	Status of the Suomi-NPP CrIS/ATMS EDR products and some thoughts on a version 7 algorithm for AIRS, IASI, and CrIS	3:50 PM
Discussion	All	V6 Issues and V7 Plans	4:20 PM

ADJOURN **5:30 PM**



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Friday, Nov. 16, 2012

Session 9: V6 Product Testing (Chair: Lambrigtsen)

Bjorn Lambrigtsen	NASA JPL	V6 Testing - Overview and Summary	8:00 AM
Baijun Tian	NASA JPL	Evaluating CMIP5 Models using AIRS tropospheric temperature and specific humidity	8:20 AM
Adam Milstein	MIT	Recent Validation Results for the Neural Network V6 First Guess	8:40 AM
Joel Susskind	NASA GSFC	Inter-comparison and assessment of AIRS Version-5 and Version-6 temperature, water vapor, surface emissivity and cloud products	9:00 AM
Glynn Hulley	NASA JPL	AIRS v6 land surface temperature/emissivity testing results and future validation plans	9:30 AM
Baijun Tian	NASA JPL	V6 L3 Products	9:50 AM

BREAK

10:10 AM

Session 10: Instrument Calibration (Chair: Elliott)

Denis Elliott	NASA JPL	Operations Status and AIRS Trends	10:30 AM
Fangfang Yu	ERT Inc., NOAA, NESDIS, STAR	Inter comparisons of radiometric calibration accuracy among CrIS, AIRS and IASI using GSICS GEO-LEO inter-calibrations	10:50 AM
Evan Manning	NASA JPL	AIRS V6 Level-1C	11:10 AM
George Aumann	NASA JPL	AIRS, IASI and CRIS Spectral Radiance from a Climate Viewpoint	11:30 AM
Milton Halem	UMBC	A Conundrum: Measured Decadal Increases in Greenhouse Gases Showing No Increase in Global Surface Temperatures	11:50 AM
Joe Predina	ITT Exelis, Inc.	Next Generation Cross track Infrared Sounder (CrIS)	12:10 PM

ADJOURN

12:30 PM